DOCUMENT RESUME

ED 049 589 40 EC 032 208

AUTHOR Mattson, Robert H.; And Others
TITLE Assessment and Treatment of Deviant Behavior in Children - Section One: Introduction and Project Overview. Final Report.
INSTITUTION Oregon Univ., Eugene.
SPONS AGENCY Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.
BUREAU NO BR-6-1308
PUB DATE 70
GRANT OEG-4-6-061308-0571
NOTE 12p.

EDRS PRICE EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS *Behavior Change, Behavior Problems, Class Management, *Emotionally Disturbed, *Exceptional Child Research, Research Design, Research Projects, *Socially Deviant Behavior

ABSTRACT

The procedures and results contained in the report define a program of research designed to investigate methods of assessing and modifying deviant behavior within the educational setting. The report has been divided into six sections with section one providing an introduction and project overview. The basic and interim proposal project commitments are stated and some of the methodological issues and questions generated during the research such as the teacher variable are briefly discussed. An overview and status of the project is provided by reviewing the content of the other five sections of the report. Section two (EC 032 209) deals with assessment; section three (EC 032 210) discusses treatment; section four (EC 032 211) covers generalization and maintenance; section five (EC 032 212) analyzes teacher behavior; and section six (EC 032 213) details the single subject experiments. (CD)

ED049589

OE/BEH BR 6-1308
PA 40
EC

Final Report

Section One: Introduction and Project Overview

Assessment and Treatment of
Deviant Behavior in Children

U. S. O. E. Contract OEG 4-6-061 308-0571

Robert H. Mattson - Project Director
Hill M. Walker - Project Co-Director
Nancy K. Buckley - Project Psychologist

EC 032 208

U.S. DEPARTMENT OF HEALTH, EDUCATION
& WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Title Page

Final Report

Assessment and Treatment of Deviant Behavior in Children

U. S. O. E. Contract OEG 4-6-061308-0571

Robert H. Mattson - Project Director
Hill M. Walker - Project Co-Director
Nancy K. Buckley - Project Psychologist

September 1970

The research reported herein was performed pursuant to a grant with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

University of Oregon

Eugene, Oregon

Introduction[1]

1. Committments

The original proposal (4-1-65) made a basic committment to develop assessment instruments for the purposes of 1. identifying school children with behavior disorders 2. providing criteria for making meaningful separations among different classes of deviant behavior 3. producing measurement data on disturbed children that will be prescriptive for the remediation and modification of deviant classroom behavior. The second basic project objective was to develop, evaluate, and test a treatment model which would be operable in a public school setting and which would be both efficient and effective in modifying deviant classroom behavior. The model was to be developed in an experimental classroom setting and tested under controlled conditions over a two year period. The authors indicated that complex relationships between treatment and behavioral variables would be investigated in the development and testing of this model. Components of the treatment model would be manipulated as independent variables and the effects of such manipulations upon behavior would be studied experimentally.

The interim proposal (3-1-68) made three basic committments. 1. to conduct a two-year experimental study of the effects of three intervention and one control strategy upon the generalization and maintenance of behavior following a two month treatment period in the token economy classroom. 2. to develop efficient social engineering strategies in the token economy classroom and to design single subject studies to investigate additional questions relating to the treatment process. 3. to analyze teacher behavior and establish functional relationships between teacher behavior and pupil performance.

2. Programmatic Nature of the Research

The procedures and results contained in this report define a program of research designed to investigate methods of assessing and modifying deviant behavior within the educational setting. These two primary goals were substantially achieved during the first two and a half years of the project. However, a number of methodological issues and questions were generated in the process of achieving these goals. For example, the ultimate purpose of any special or experimental classroom for children with behavior disorders is the reintegration of these children back into the regular classroom as soon as it is behaviorally and academically feasible. It has been the authors' experience that the academic and social behaviors of disturbed children come under rapid stimulus and reinforcement control in an experimental class setting. However, this control quickly breaks down upon re-entry into the regular classroom since the necessary controlling stimuli, as a rule, are not programmed in this setting. Thus, the experimenters had designed a treatment model that was very effective in modifying deviant behavior within the experimental classroom setting. Yet the efficiency of these procedures had little effect upon whether the modified behavior maintained in the regular classroom setting after treatment. At this point in the study, it became necessary to design a study of various strategies that would facilitate generalization and persistence of treatment effects across both time and classroom setting.

As the project developed, it became obvious that the classroom teacher's manipulation of such variables as: deprivation states, setting events, stimulus material, social and non-social reinforcers,

and aversive stimuli established here as a major controlling agent of the learning climate in which deviant behavior is produced. Thus, the teacher variable is a critical dimension in both the referral of disturbed children to special classes and in the reintroduction of disturbed children into the regular classroom following treatment. The authors were required to design studies of the relationship between teacher behavior and pupil performance before attempting to manipulate this variable in order to program maintenance.

In a third area of the research program, the experimenters designed individual studies to investigate specific questions raised by application of the treatment model to the behavior of deviant children. Three studies were designed to investigate: 1. conditioning of attending behavior 2. effects of reinforcement, feedback, and punishment upon academic response rate 3. use of group reinforcement procedures to increase cooperative social interactions.

All of these studies were related to the general objectives of identifying and modifying deviant behavior within the classroom setting. Each study area investigates a discrete unit or dimension essential to the development and implementation of efficient procedures for modifying deviant behavior in children.

3. Overview and Status

1. Assessment: Section Two

A three stage assessment model has been developed for the purpose of meeting the project's measurement/identification/diagnostic goals. Stage one consists of a fifty item behavior checklist which functions as an initial screening device for the identification of disturbed

children. The scale was normed on 534 forth, fifth, and sixth grade subjects. A weighted score of 21 on the scale is equal to one standard deviation above the mean of the norm sample and is the separation point for distinguishing deviant from non-deviant children. The reliability and validity estimation has been completed on this scale. Stage two consists of a sixty-two item behavior rating scale which is divided evenly between items that measure acting out disruptive behavior and items that measure withdrawn behavior. Likert type scales are used to collect three sets of data on the acting out items and one set of data on the withdrawal items. On section 1 of the scale, the teacher is asked to estimate: 1. the rate of occurrence 2. her immediate response to the behavior 3. how much the behavior irritates the teacher. On section 2, consisting of withdrawal items, only rate of occurrence is estimated. A behavior science panel, consisting of a psychiatrist, school psychologist, social worker, reading teacher, and clinical psychologist sorted the scale items into a classification system for the purpose of grouping items which measure common factors. Two equivalent forms of the BRS were developed. The reliability and validity estimates have been completed on this scale. A behavioral observation form was developed for the purpose of measuring task-oriented behavior. This form was used during the first two years of the project. Due to the complexity of the variables investigated during the second half of the project, the authors adopted and modified an observation system originally developed by Ray, Shaw, and Patterson (1969). This form allows simultaneous observation of 13 behaviors: seven appropriate and six appropriate. The behavioral categories

include noisy, aggressive, not attending, peer initiation, initiation to peer, movement around the room and inappropriate task. Appropriate behavior categories include individual work, appropriate group behavior, reciting, volunteering, teacher initiation, and initiation to teacher. Each response code is operationally defined in the manual for the observation form. The form also contains codes for the classroom setting, the social consequences of child behavior and the social agent supplying the consequence. The social consequences of child behavior are coded as no response, attention, praise, compliance, disapproval, non-compliance, and physical (+ or -). The social agent supplying the consequence is coded as teacher, peer, or observer.

The assessment model was designed so that disturbed children can be separated from populations of non-disturbed children. If an S receives a weighted score of 21+ on stage one, then he is exposed to the more refined and more detailed measures in stages two and three. Identification data are collected in stage one and more specific data are collected in stages two and three for diagnostic and treatment prescription purposes.

2. Treatment: Section Three

The treatment goals outlined in the original proposal have been met. A treatment model was developed during the first year of the project. The components of this model were evaluated and the initial treatment procedures replicated successfully on a second group of subjects. Between 1968 and 1970, the treatment model was replicated on a total of 44 subjects. Eight groups of six subjects each were rotated through the experimental classroom for a two month period of treatment.

Application of the treatment procedures produced measurable changes in appropriate classroom behavior and in measured achievement in math and reading.

3. Generalization and Maintenance: Section Four

Subjects who receive two-months of treatment in the token economy were randomly assigned to one of three experimental or one control strategy upon return to the regular classroom. The three experimental strategies 1. peer group reprogramming 2. equating external stimulus conditions 3. teacher training were designed to facilitate generalization and maintenance of modified behavior from the experimental classroom setting to the regular classroom. In the peer group reprogramming condition, contingencies were established in the regular classroom where the experimental S earned points for the entire class. Points were recorded on a "mike box" which was operated in the regular classroom twice weekly by a project staff member. Points were exchanged periodically for films, cartoon clips, or a class party. Points were earned for appropriate social and academic behaviors and withheld for inappropriate social and academic behaviors. The second experimental condition was designed to adapt the treatment model used in the token classroom to the experimental S in the regular classroom setting. Reinforcement schedules and amount of reinforcement for various activities were programmed for the teacher. All materials in the basic skills areas were provided for the subject. The teacher was informed as to the S's level of performance in each subject area. Remedial drills were recommended and provided as necessary. Back-up reinforcers were provided by the project. The third experimental

condition attempted to reprogram the teacher's behavior. The teacher (regular classroom) spent ½ day in the token economy observing and working with the experimental subject. During this period, she conferred with the project teacher and psychologist about details of the academic and management programs that had been designed for the subject. The teacher was provided with a programmed text on classroom contingency management which she read and discussed with the project staff. The program was designed to provide the teacher with a working knowledge of such principles of classroom management as: 1. how behaviors are acquired 2. how behaviors are maintained 3. how behaviors are eliminated or weakened. Teachers were provided with 3 hours of university credit for successful completion of the program. Grades depended upon demonstrated ability to apply the principles of the program in actual classroom practice.

Subjects were observed on a weekly basis following termination of treatment in the experimental classroom. Amount of deviant behavior produced by subjects in the experimental and control groups was the dependent variable used to evaluate the efficiency and effectiveness of these strategies over a two year period.

4. Analysis of Teacher Behavior: Section Five

In attempting to reprogram a social environment so as to maintain behaviors modified within an experimental setting, it appeared essential that the reprogramming take into account the teacher's role as a controlling agent in the regular classroom environment. Data collected in the project indicated that the probability of reprogramming efforts succeeding were substantially reduced unless the teacher's cooperation

was gained. (Additional support for this is found in a study by Kuypers et. al. How to fail with a token economy. Exceptional Children, Nov. 1968). The authors have assumed that the potency of the teacher in controlling and regulating the learning environment probably derives from her manipulation of such variables as deprivation states, setting events, stimulus materials, social and non-social reinforcer, aversive control procedures, etc. A committment was made in the interim proposal (3-1-68) to 1. analyze teacher behavior into discrete components 2. attempt to manipulate these discrete units experimentally 3. establish functional relationships between these components and student behavior. In attempting to conceptualize this problem and in the initial data collecting process, it became obvious that teacher behavior is much too complex, varied, and unpredictable to account for in terms of simple, discrete units or variables. The teacher spends a large amount of time in answering questions, manipulating materials, explaining assignments, correcting papers, repeating directions, demonstrating and cueing, etc. Very little time is spent in what one would ordinarily call "pure teaching". Often two, three, and even four of these activities are on-going at the same time. Trying to establish functional relationships between the above activities and pupil performance was in the author's opinion a fruitless task. In the last three years, a number of carefully controlled operant studies have focused upon the teacher's manipulation of classroom contingencies (under close supervision and direction) and the effect of these manipulations upon pupil behavior. (Becker, W. C., Madsen, C. H. Jr., Arnold, R. and Thomas, D. R. The contingent use of teacher attention and praise in

reducing classroom behavior problems. Journal of Special Education, 1967, 1, 287-307; Madsen, C. H.,Jr., Becker, W. C., Thomas, D. R., Kosen, Linda, and Plager, Elaine. An analysis of the reinforcing function of "sit down" commands. In R. K. Parker (Ed.) Readings in Educational Psychology, Boston: Allyn and Bacon, 1968; Thomas, D. R., Becker, W. C. and Armstrong, M. Production and elimination of disruptive classroom behavior by systematically varying teacher's behavior. Journal of Applied Behavior Analysis, 1968, 1, 35-45; Hall, R., Lund, Diane, and Jackson, Deloris. Effects of teacher attention on study behavior. Journal of Applied Behavior Analysis, 1968, 1, 1-12; Bushell, Don Jr., Wrobel, Patricia Ann, and Michaelis, Mary Louise. Applying group contingencies to the classroom study behavior of preschool children. Journal of Applied Behavior Analysis, 1968, 1, 55-61). These and similar experimental studies are building a firm foundation for the investigation of the controlling functions of teacher behavior and their relationship to pupil behavior. This approach is providing the methodology for analyzing and describing the classroom environment. The authors designed two studies in this area: 1. one to investigate classroom control parameters as a function of teacher dispensed social reinforcers. 2. and the other to collect normative data on the teacher's rate of social consequation to deviant and non-deviant behavior and to measure changes in the teachers consequating behavior as a result of modifying the child's rate of deviant behavior.

5. Single Subject Experiments: Section Six

The studies in this section investigated questions generated by application of the treatment model in the experimental class setting. The experiment on attending behavior was designed to measure the conditionability of attending behavior using a changing schedule of requirements for reinforcement. The experiment on effects of reinforcement, feedback, and punishment on academic response rate was designed to provide data on optimum combinations of consequation variables for improving academic performance in the classroom setting. The experiment on increasing cooperative social interactions with group reinforcement procedures grew out of a need to devise methods for managing the playground behavior of groups of deviant children.

R. H. M.
H. M. W.
N. K. B.

---

[1] During the academic school years 1968-1969 and 1969-1970 there were a total of 268 visitors to the experimental classroom: 139 during 1968-1969 and 129 during 1969-1970. These included parents of children in the classroom, local school district personnel, university personnel, and out of state visitors. Students were referred and accepted from 26 of the 32 elementary schools in the local district. There were: 13 students in grade 3; 11 in grade 4; 10 in grade 5; and 10 in grade 6.